

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (original): A process for producing microparticles, characterized in that the process comprises feeding into a heat source a raw material in the form of a liquid stream, liquid droplets, or powder; capturing the formed product in the form of microparticles by means of an atomized liquid fluid; and collecting the microparticles in the form of slurry through gas-liquid separation.

2. (original): A process for producing microparticles according to claim 1, wherein the raw material to be fed into the heat source is provided through forming a molten material into a liquid stream or liquid droplets.

3. (original): A process for producing microparticles according to claim 1, wherein the raw material to be fed into the heat source is in the form of atomized powder.

4. (currently amended): A process for producing microparticles according to ~~any one~~ claim 1, wherein the gas-liquid separation is performed by means of a cyclone separator.

5. (currently amended): A process for producing microparticles according to ~~any one~~
~~claims 1 to 4~~claim 1, wherein the heat source is acetylene flame or DC plasma flame.

6. (currently amended): A process for producing microparticles according to ~~any one~~
~~claims 1 to 5~~claim 1, wherein the liquid fluid is water.

7. (currently amended): A process for producing microparticles according to ~~any one~~
~~claims 1 to 6~~claim 1, wherein the raw material is at least one member selected from among
metals, alloys, oxides, nitrides, and oxide nitrides.

8. (currently amended): A process for producing microparticles according to ~~any one~~
~~claims 1 to 7~~claim 1, wherein the heat source is an oxidizing atmosphere or a nitrifying
atmosphere, whereby oxide microparticles, nitride microparticles, or oxide nitride microparticles
are produced.

9. (currently amended): A process for producing microparticles according to ~~any one~~
~~claims 1 to 7~~claim 1, wherein the raw material is an In-Sn alloy or ITO powder, from which
indium oxide-tin oxide powder is produced.

10. (original): A process for producing microparticles according to claim 9, which
produces indium oxide-tin oxide powder having a tin content of 2.3 to 45 mass% as calculated
on the basis of SnO₂.

11. (currently amended): A process for producing microparticles according to ~~any one~~
~~claims 1 to 10~~claim 1, wherein the product flows at a maximum speed of 150 m/sec or less, when
the product is captured by means of the liquid fluid.

12. (original): An apparatus for producing microparticles, characterized in that the
apparatus comprises

an inlet for introducing, into the inside of the apparatus, a gas fluid and a product
obtained through feeding a raw material in the form of a liquid flow, liquid droplets, or powder
into a heat source;

a fluid jetting means for jetting an atomized liquid fluid to the introduced product;

a first gas-liquid separation means for subjecting, to gas-liquid separation, microparticles
captured by the liquid fluid, to thereby form a slurry of the microparticles; and

a first circulating means for returning a part of an atmosphere fluid containing
microparticles that have not been captured by the liquid fluid to a position where the fluid jetting
means is disposed.

13. (original): An apparatus for producing microparticles according to claim 12, which
further comprises, on the downstream side of the first gas-liquid separation means, a second gas-
liquid separation means, the second gas-liquid separation means being provided for introducing a
part of an atmosphere fluid containing microparticles that have not been captured by the liquid

fluid, for jetting an atomized liquid fluid to the atmosphere fluid, and for performing gas-liquid separation, to thereby obtain a slurry of the microparticles.

14. (original): An apparatus for producing microparticles according to claim 13, which apparatus further comprises, on the downstream side of the second gas-liquid separation means, a second circulating means for returning a part of an atmosphere fluid containing microparticles that have not been captured by the liquid fluid to the inlet of the second gas-liquid separation means.

15. (currently amended): An apparatus for producing microparticles according to ~~any of claims 12 to 14~~claim 12, wherein the first or second gas-liquid separation is a cyclone separator.

16. (currently amended): An apparatus for producing microparticles according to ~~any of claims 12 to 15~~claim 12, wherein the particles flow at a maximum speed of 150 m/sec or less, when the microparticles are captured by the liquid fluid jetted by means of the fluid jetting means.